DRAFT EPA Comments on Draft Pre-Final (90%) Remedial Design Report

Pohatcong Valley Groundwater Contamination Superfund Site OU3

General Comment:

We need to resolve the vertical extent of the thermal treatment zone. We acknowledge that the heating volume will extend 10 ft above and 5 ft below; however, if there's a clear exceedance of the 1 mg/kg, it needs to be included within the thermal treatment zone. See the attached spreadsheet for a comparison of the depth of treatment presented in Design Drawing C102 vs. the PDI results.

Specific Comments:

Section 3. In Situ Thermal Remediation System Design

1. **Section 3.9.5 Process Blowers, Page 21, 1st Paragraph –** "Approximately 2,600 acfm of combined steam and non-condensable vapors will be drawn from the subsurface at peak operating conditions." What is the basis for the estimated flow of steam and non-condensable vapors? What is the total length of vapor extraction screen length within the TTZ?

Section 7. Operations, Maintenance and Monitoring

1. **Section 7.2.2, Vapor Sampling, Page 32, 3rd Paragraph** - "An energy balance will be maintained throughout operations to document that enough energy has been applied to the TTZ for thermal treatment and to demonstrate that the remedial goal has been achieved." Please include a reference to the modeling report or briefly summarize the estimated energy input in this section.

2. **Section 7.2.2, Vapor Sampling, Page 32, 4th Paragraph** – "To demonstrate that diminishing returns at OU3 Source Area A have been achieved, a TCE influent concentration of less than 10% of the observed peak influent concentration over a period of 7 days under steady state operating conditions is proposed." To more reliably demonstrate diminishing returns, please extend the demonstration period from 7 to 14 days and document with 3 consecutive analytical air samples.

3. **Section 7.2.7, Indoor Air Monitoring, top of Page 35 – "**USEPA will be immediately notified in the event of a verified exceedance of the Site-specific indoor air quality standard of 7 µg/m3 for TCE."
Modify the definition of a verified exceedance as 2 consecutive results above the site-specific indoor air quality standard at any given location. Our understanding is that if routine sampling cycles between the 10 locations every 5-8 minutes, this would represent a timeframe of 1 to 1.5 hours to confirm an exceedance under normal operating conditions.

Also, state whether baseline indoor air monitoring via VaporSafe™ will be conducted prior to initiating heating or whether initial monitoring during startup will be sufficient to characterize potential background levels of TCE in indoor air.

Section 8. Post- Remediation Performance Verification Plan

1. **Section 8.5, Post-Remediation Performance Verification Report, Page 40 -** Please indicate that advanced notification of the intent to submit the draft Performance Verification Report will be provided, to the extent possible, to ensure timely review and approval.

APPENDICES

Appendix A –
Draft OU3 Supplemental Pre-Design Investigation Report

1. **Attachment F, EVS Model Four-Dimensional Interactive Model Animation -** As part of the 100% design, please provide a 4DIM file with the ISTR infrastructure included to allow for faster verification that variable thermal treatment zone depths shown on Drawing C102 encompass the estimated depth of contamination above 1 mg/kg TCE.

Appendix B –
Thermal Desorption Modeling Report

Section 3.4, Temperature Progression, Figure 3.6 – What is the difference between Figure 3.5 and 3.6? Also, is a change in floor temperature expected based on the "cold-pin" effect and would this be limited to the molding room?

Appendix D – Pre-Final Design Drawings

1. **Pre-final 90% Design Drawings, C102 and C103 sheet 2 of 3** – There seems to be a discrepancy between thermal treatment depths depicted within the embedded table on C102 and the depths of heaters listed on C103, second sheet. For example, SB04 and SB06 have

contamination extending below 80 ft bgs, yet C102 shows that these two borings are located in Area C with a TTZ extending from 65 to 80 ft bgs. C103, sheet 2 includes heater well construction details suggesting the TTZ extend to 85 ft in the vicinity of these two borings, which is a more appropriate depth of treatment. Please clarify. Reference the attached spreadsheet showing extent of thermal treatment zone based on C102 vs. PDI results.

Please revise the extent of thermal treatment on C102 to match Figure 7 which shows T18 is inside the thermal treatment area.

C103, 2nd sheet: Please adjust embedded image so table resolution is clearer or include table as an attachment.

2. **Pre-final 90% Design Drawings, C103 sheet 3** - Within Table 2, indicate the temperature monitoring location ID and the associated treatment area to allow verification of proposed temperature monitoring intervals as described in the text. There seem to be discrepancies in monitoring depths compared to TTZ intervals shown on C102.

Appendices H and K –

Draft Operations, Maintenance & Monitoring Plan and Draft Health and Safety Plan for OU3 In-Site Thermal Remediation

1. Explain in the HASP how hazards associated with construction and operation of the thermal system will be communicated with Albea personnel.

2. Include reference to timely notification of EPA and NJDEP in the event of a spill. If the contaminated water/liquid/etc. enters the "waters of the state, or onto land to which it could flow to the waters of the state (groundwater included)" it's reportable to the DEP Hotline; 1-877-WARN DEP.

3. Include the project file names of competent and/or qualified persons along with their proof of competency/qualification prior to start site specific work activities.

4. Include that an inspection by a master electrician will be completed with regard to heater circuits and any other electrical components.

5. Please include a reference to Arc Flash Hazard Assessment in accordance with NFPA 70E 130.5 and ER 385-1-100.

6. Please specify that labeling of last use date for any applicable hazardous waste disposal items will be done to allow for proper disposal within the regulatory guidance time limits.